AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A method for detecting an analyte in a sample comprising:

(a) contacting a fluorophore-labeled aptamer bound to a solid support with the sample;

(b) directly illuminating the aptamer with polarized light;

(c) measuring the fluorescence anisotropy of the fluorophore; and

(d) identifying the presence or amount of the analyte when said fluorescence anisotropy measurement is greater than an anisotropy measurement obtained in the absence of the ~~sample~~analyte.

2. **(Previously Presented)** The method of claim 1 wherein the solid support is a bead.

3. **(Previously Presented)** The method of claim 2 wherein the bead is a silica bead.

4. **(Previously Presented)** The method of claim 2 wherein the bead has a diameter between about 1 μm and about 10 μm.

5. **(Previously Presented)** The method of claim 4 wherein the bead has a diameter of about 5 μm.

6. **(Previously Presented)** The method of claim 2 wherein the bead is suspended in solution.

7. **(Previously Presented)** The method of claim 2 wherein the bead is arranged in a two-dimensional array.

8. **(Previously Presented)** The method of claim 1 wherein the aptamer comprises between about 10 and about 100 nucleotides.

9. **(Previously Presented)** The method of claim 1 wherein the aptamer is labeled with a fluorophore selected from the group consisting of fluorescein derivatives, eosin derivatives, coumarin derivatives, and rhodamine derivatives.

10. **(Previously Presented)** The method of claim 9 wherein the aptamer is labeled with carboxyfluorescein (FAM).

11. **(Previously Presented)** The method of claim 1 wherein the aptamer is part of an array of aptamers.

12. **(Previously Presented)** The method of claim 11 wherein the array comprises two or more addressable locations.

13. **(Previously Presented)** The method of claim 12 wherein each addressable location comprises a single type of aptamer.

14. **(Previously Presented)** The method of claim 12 wherein each addressable location comprises multiple types of aptamers.

15. **(Previously Presented)** The method of claim 14 wherein each type of aptamer is labeled with a fluorophore with unique spectral characteristics.

16. **(Previously Presented)** The method of claim 1 wherein the polarized light is laser light.

17. **(Previously Presented)** The method of claim 1 wherein the analyte is associated with a disease or disorder.

18. **(Previously Presented)** The method of claim 1 wherein the sample is obtained from a patient suspected of suffering from a disease or disorder.

19. **(Previously Presented)** The method of claim 1 wherein the analyte is a protein.

20. **(Previously Presented)** The method of claim 1 wherein the analyte is a metabolite.

21. **(Previously Presented)** The method of claim 1 wherein the sample is from a human patient and the analyte is associated with a disease or disorder.